

## ANNEX C: TRAINING AND LEADER DEVELOPMENT

The Army's mission remains to provide trained and ready land forces to the designated Joint Force commanders to fight and win our nation's wars. This remains a nonnegotiable mission that the Army must accomplish. Our Army is at war with nearly 50 percent of its forces engaged in combat. We will continue to be so for the foreseeable future. Our Army is a proud member of the Joint Force, expertly serving our nation and its citizens as we continuously strive toward new goals and improved performance. The Soldier's training, readiness and welfare are central to all that we do.

The American Soldier remains indispensable to the joint team. Flexible, adaptive and competent Soldiers infused with the Warrior Ethos fight wars and win the peace. The individual Soldier is the centerpiece of our combat systems and formations. Training Soldiers and developing leaders to function effectively in units is central to mission success.

The recent experiences of our Soldiers and leaders have provided a wealth of information to help define the skills our leaders need to be successful. Today in Iraq and Afghanistan young officers, warrant officers (WOs) and noncommissioned officers (NCOs) are accomplishing extraordinarily complex tasks that go well beyond traditional warfighting missions. Their experiences offer a glimpse into the future operating environment. As such, our training programs at the combat training centers and in the school houses are further preparing leaders to operate in uncertain and complex environments.

The Army has two core competencies supported by a set of essential and enduring im-

peratives. The Army's core competencies are (1) train and equip Soldiers and grow leaders; and (2) provide relevant and ready land power capability to the Combatant Commander as part of the joint team. The 10 enduring imperatives are: implement transformation initiatives, improve capabilities for homeland defense, improve proficiencies against irregular challenges, improve capabilities for stability operations, achieve Army force capabilities to dominate in complex terrain, improve Army capabilities for strategic responsiveness, improve global force posture, improve capabilities for battle command, improve joint fires capability and improve capabilities for joint logistics. These imperatives will guide how the Army organizes, trains and equips its forces to ensure mastery of the full range of military operations and dominance in armed conflict.

The Army Plan 06-25 specifies that "Readiness Is our Mission" to meet the requirements of our joint Combatant Commanders. Both the Secretary of the Army and the Chief of Staff, Army (CSA) have further stated that individual and unit readiness is a nonnegotiable priority that the Army's training, leader development and education capabilities must enable and support. The Department of Defense's (DOD's) Transformation Planning Guidance (TPG) states, "We must transform not only the capabilities at our disposal, but the very way we think, the way we train, the way we exercise and the way we fight." We are re-examining and challenging our institutional assumptions, paradigms and procedures to better serve our nation. The end result of this examination will be a more relevant and ready force—a campaign-quality Army with a joint and expeditionary mindset. Our Army

will retain the best of its current capabilities and attributes while developing others that increase relevance and readiness to respond in the current and projected strategic and operational environments.

## Army Culture

Training and leader development activities take place within the Army's culture—a shared set of beliefs, values and assumptions that define what is most important to Soldiers and leaders. Our culture is ingrained in our new Soldiers and reinforced daily in order to provide a positive framework for everything we do.

Army culture is representative of American society as evidenced by the adoption of the seven Army Values: loyalty, duty, respect, selfless service, honor, integrity and personal courage. These values play a critical role in shaping the beliefs of Soldiers and leaders. Army culture is internalized over time by its members and is reflected in their practices and beliefs.

Values are a nonnegotiable element of Army transformation. A highly complex, nonlinear battlespace will create situations that may at first appear morally ambiguous. To combat this perceived ambiguity, Soldiers and leaders require a solid foundation and regular training in Army Values. This training will ensure that Soldiers and leaders, when confronted with morally uncertain situations, understand what “doing the right thing” means. Army Values will continue to be the foundation of our Army culture.

The Warrior Ethos refers to the professional attitudes and beliefs that characterize the American Soldier. At its core, the Warrior Ethos grounds itself on the refusal to accept failure. The Warrior Ethos requires unrelent-

ing and consistent determination to do what is right and to do it with pride. In whatever conditions Army leaders find themselves, they turn the professional Warrior Ethos into a collective commitment to win with honor. The Warrior Ethos applies to all Soldiers, not just to those who close with and destroy the enemy.

A creed, by its very definition, is a system of principles or beliefs. From an ideological perspective, a creed will help its followers focus on a reason for existing. The Soldier's creed serves to unify all Soldiers and leaders in a common bond. It is the key component to the inculcation of the Warrior Ethos. The creed speaks to the heart of every Soldier and leader. It is the touchstone that keeps Soldiers and leaders leaning forward during times of hardship and adversity and the mantra by which Soldiers and leaders live to fight for one another. The Soldier's creed is the common bond that transcends all distinctions but one, what it means to be a Soldier. The Army civilian creed serves to increase civilians' pride and commitment to the Army team. Civilians are committed to the Army by being technically prepared to meet the challenges of the future and by doing what it takes to accomplish the mission. Civilians possess the unique characteristics of loyalty, dedication and mission orientation that lead most to identify themselves within the Army culture as “Army civilians” rather than “federal civil servants.”

Army units operate in battle as part of the Combatant Commander's joint team. Because we fight jointly, we must think, train, educate and exercise jointly. Army culture must embrace its nesting within joint culture. Jointness must be incorporated in every facet of Army culture. Jointness must be a common thread running through all aspects of Army training and leader development.

We remain a standards-based Army. Army culture portrayed in the Army Training and Leader Development Model requires training and leader development to be done to a standard using appropriate doctrine. Training and leader development are not time-based activities. Units, leaders and individuals train to standard on their assigned missions. Commanders and NCOs are held responsible for assuring their Soldiers and units meet these standards.

## Future Force

Future force Soldiers and leaders will form the core of lethal and effective units capable of exploiting information dominance and employing warfighting systems of systems to meet the future force requirements. They will be highly trained to be strategically responsive, deployable, agile, versatile, lethal, survivable and sustainable across the entire spectrum of military operations. Soldiers and leaders will be confident and competent, and capable of rapid synthesis and assessment of information and immediate situational understanding.

The future force will require units trained to rapidly transition from one mission to the next and conduct mission planning en route while assembling a task organization tailored into force packages for mission execution. Commanders and battle staffs must be trained to see and understand the battlespace. Every Soldier must be a sensor to provide actionable intelligence. Organizations need to be skilled at the rapid collection and fusion of information from manned/unmanned systems coupled with human intelligence (HUMINT) that enables situational understanding and decisive operations. Commanders and battle staffs must synchronize and integrate joint fires to allow future force units to mass effects at the critical place and time.

The training environment will need to approximate the operational environment. Our modernization effort requires transforming initial military training, civilian training, leader development for military and civilians, and professional military education. Additionally, we need to embed training capabilities into our operational platforms and resource the institution to meet requirements mandated by the force. Live-virtual-constructive (LVC) training capabilities must be integrated and linked to joint training capabilities. At end state, our Army will employ training capabilities with seamless links between training institutions, home station, combat training centers and deployed locations. By achieving these capabilities, the Army will be able to train, alert, deploy, employ and execute to meet our nation's complex national security requirements. The difference between operations today and future force operations is a requirement for greatly enhanced doctrine, training and leader development (DTLD) capabilities, enabled by improved processes and an integrated Training Support System (TSS) that supports Soldiers and leaders whenever and wherever required.

With the draw down of our nation's military force, the role of civilians is more critical to the Army's ability to successfully accomplish its missions. Civilians are deployed with Soldiers around the world. Many of these civilians are equipment, supply, telecommunications and quality assurance specialists. Besides these functions, civilians fill other critical roles in forward support of our military troops.

## Future Force Concepts and Capabilities

Training and developing the future force Soldier and leader is derived from an assessment of future force warfighting concepts and capabilities. The strategic concepts derived from this analysis are:

- Sustain a doctrine- and standards-based Army
- Be capable of full-spectrum training
- Develop future force Soldiers
- Develop future force leaders

From these concepts, seven strategic capabilities follow, including:

- Develop technologically enabled, highly responsive, flexible, tailored, dynamic knowledge depositories containing observations, insights, lessons, doctrine, tactics, techniques and procedures (TTPs), and training support publications, products, packages and modules
- Embed training tools into operational and institutional system of systems
- Integrate Army LVC training capabilities and link to joint training capabilities
- Make training and training support available on demand
- Link training environments and domains through the infosphere and the Global Information Grid
- Transform initial military training
- Transform Professional Military Education (PME)

Embedded training is a functional capability built into or added onto operational equipment and systems. The goal is to provide a multi-echelon virtual and constructive training capability to support individual, crew, leader and distributed collective training using built-in operational interfaces. Through embedded training and deployable training infrastructure, forces will be able to train globally and manage and assess readiness regardless of

location or duration of deployed operations. It will function through a joint architecture using common standards within integrated LVC training systems. Embedded training supports training, assessment and control of exercises on the operational equipment with auxiliary equipment and data sources as necessary.

Embedded training in Army acquisition programs must be designed and fielded to integrate immediately into the Global Joint Training Infrastructure, which includes architectural standards, range instrumentation, simulators and simulations, and communications to support distributed live, virtual, and constructive connectivity. Deployed forces must have the ability to sustain readiness through training and rehearsal, regardless of location or length of deployment. Embedded training capabilities will be consistent with joint operational and joint training architectures, and will be achieved using real-world command and control systems.

Army centers and schools will continue to train and educate Soldiers and leaders. During initial military training, centers and schools will continue to train new recruits and officers, instilling Army Values, the Warrior Ethos and Soldier's Creed, and preparing them for their operational assignments. Centers and schools will continue to develop leaders through NCO, WO and officer education programs. Additionally, in times of crisis and need for Army expansion, centers and schools will remain vital to the mobilization requirements of the Army.

Technical training, the new civilian education system, and advanced education, combined with experiential development provide the multi-skilled leaders with values, attributes, versatility and agility to operate effectively in future challenging and complex missions.

The goal of unit training is mission readiness. Field commanders will continue to employ the principles of Army training to ensure proficiency on mission-essential tasks. Training will be standards-based and will prepare units to operate in a joint, interagency, intergovernmental, and multinational (JIIM) environment. The intent will be to provide leaders and Soldiers with a realistic, operationally relevant training capability that can replicate the full spectrum of operations. Meeting these requirements will require an integrated TSS that will link Soldiers and leaders to the centers and schools and the Combat Training Centers (CTCs) through a Global Information Infostructure (GII).

## Training and Leader Development

Leader development is the deliberate, continuous, sequential and progressive process, based on Army Values, which develops Soldiers and civilians into competent and confident leaders capable of decisive action. Closing the gap between training, leader development and battlefield performance has always been the critical challenge for any army. In an era of complex national security requirements, the Army's strategic responsibilities now encompass a wider range of missions that present even greater challenges to our leaders. These full-spectrum operations will include combined arms and JIIM considerations.

Leader development is accomplished through a lifelong learning process that takes place through operational experience in the unit, the institutional Army (schools and training centers), and through self-development. The focus of leader development is the future—the preparation of Soldiers and civilians for successive levels of leadership responsibility. Leader development is the mechanism by which the Army grows leaders at all levels to provide purpose, direction and motivation to the force and all its components. When done well, leaders will be equipped intellectually and endowed with the competence to meet the many and uncertain challenges of the contemporary operational environment.

The Army Training and Leader Development Model identifies an important interaction that trains Soldiers and civilians now and develops leaders for the future. Leader development is a lifelong learning process. The three core domains that shape the critical learning experiences throughout a Soldier's, civilian's or leader's career are operational, institutional and self-development. These domains exist within an Army culture bound by distinct values, standards, ethics and the Warrior Ethos. Focused on the Soldier, these domains interact using feedback and assessment from various sources and methods, including counseling and mentoring, to maximize technical and tactical competence and, ultimately, warfighting readi-

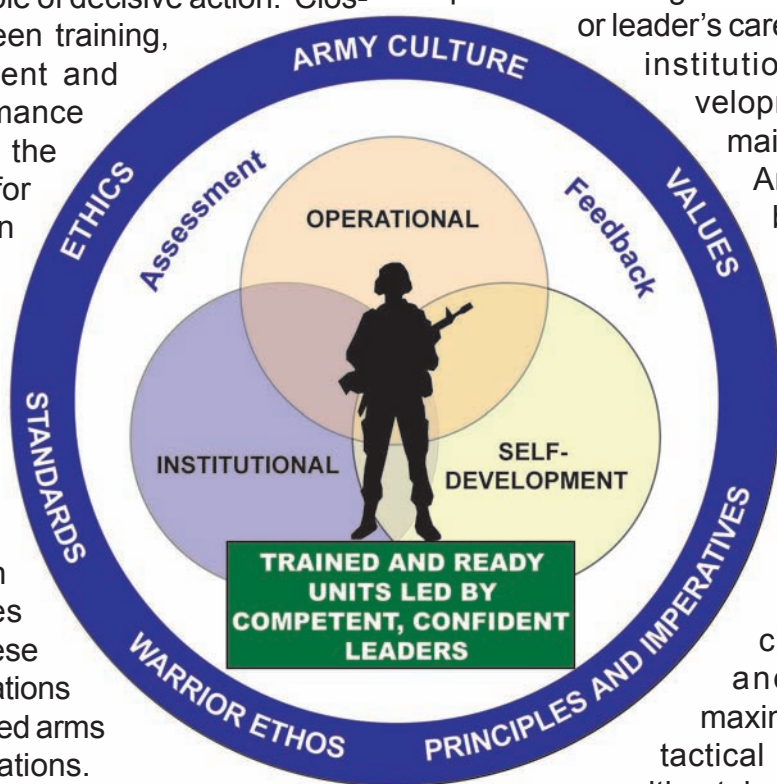


Figure C-1. Leader Development

ness. Each domain has specific, measurable actions that must occur to develop our leaders.

In the operational domain, leader development is accomplished in units and organizations through individual and collective training at home station, during major/joint training exercises, through CTC program participation, while conducting full-spectrum operations, and through the mentoring received at every level of command. In this domain, leader development is facilitated by individual commitment and chain of command support to self-development, and filling gaps in leader skills, knowledge and attributes as identified through individual and chain-of-command assessment and feedback systems. As we transform to a modular, expeditionary force, common standard operating procedures (SOPs) among like units will be necessary to facilitate the expeditionary aspect of the modular force, since commanders must know how the modules that are joining them will operate.

The institutional domain provides standards-based training and education from individual through collective training. Instruction for current and future leaders will instill them with a Warrior Ethos and a common doctrinal foundation. Institutional training focuses on educating and training Soldiers, civilians and leaders on the key skills, knowledge and attributes required to operate in any environment. It includes individual, unit and joint schools and advanced civilian and military education.

The self-development domain is a standards-based, feedback-driven program of activities and learning that contributes to professional competence, organizational effectiveness and personal development. It is a program driven by the individual and the mentoring

of superiors. This includes individual and organizational assessment and feedback programs in the operational and institutional domains linked to self-development activities. Throughout this lifelong learning and experience process, there are formal and informal assessments and feedback of performance to prepare leaders for their next level of responsibility. Assessment is the method used to determine the proficiency and potential of leaders, and the feedback must be clear, formative guidance directly related to the outcome of training events measured against standards.

One mandate of Army transformation is to ensure the link between training and leader development is well understood in order to prepare Army leaders for full-spectrum operations. Linking these two fundamental obligations commits the Army to training Soldiers and civilians while developing them into leaders. Training and leader development is a team effort, and the Army has a role that contributes to force readiness. For example, the institutional Army, which includes schools, training centers, combat training centers and PME programs, trains Soldiers and leaders to take their places in Army units by teaching both doctrine and TTPs. Other examples are operational deployments and major training opportunities such as CTCs, CTC exportable training, joint exercises, and mission rehearsal exercises (MRXs)/mission readiness exercises (MREs). They provide rigorous, realistic, and stressful training and operational experience under actual or simulated conditions to enhance unit readiness and produce bold, innovative leaders.

Through the proper balance of unit experiences, training and education at all levels, we must produce leaders who are decisive, innovative, adaptive, culturally astute and effective communicators. This balance is

dynamic and continually adjusted based on future force needs. In addition to being experts in the art and science of the profession of arms and demonstrating character and integrity in everything they do, our leaders must be astute at building teams, boldly confronting uncertainty and solving complex problems while engendering loyalty and trust. Above all, our future senior leaders must be strategic and creative thinkers dedicated to lifelong learning. Only through that commitment will we develop leaders thoroughly comfortable in leading, managing and changing large organizations as well as skilled in governance, statesmanship and diplomacy.

## Civilian Leader Development

The Army requires committed civilian leaders who are fully capable and add immediate and sustained value to their organizations through high levels of performance that is linked to their organizations' visions, goals and objectives. Civilian leaders have more responsibility and a greater leadership role in the transformed Army as military positions in the institutional Army are civilianized. This requires a robust civilian leader development program, which is directly linked to readiness.

To ensure Army civilian training and leader development is a high priority, proponentcy for civilian leader development was transferred to Army G-3 and a civilian leader development division was created. The mission of the division is to ensure the Army provides training, education and operational experiences to develop leader competencies and enhance capabilities of Army civilians in support of Soldiers, the Army and the nation. The division monitors the implementation of the Army Training and Leader Development—Civilian Implementation Plan for pace of completion, senior leader involvement and funding. G-3 proponentcy for civilian leader development

brings about a significant change in culture as the Army moves toward greater integration of civilians within the uniformed force. The oversight of civilian leader development training and related policy issues dictates that the G-3 remains cognizant of all issues and actions that impact Army training.

The Civilian Education System, Defense Leadership and Management Program, and Senior Service College educate civilians with the necessary knowledge, skills, abilities and behaviors to confidently and effectively operate amidst the complexities and challenges of the 21st century national security environment.

## Civilian Education System (CES) Leader Development Program (LD)

The CES Leader Development Program is a new leader-development program being prepared for Army civilians. CES is based on leadership competencies derived from Office of Personnel Management competencies and leader competencies identified by the Center for Army Leadership in the emerging *FM 6-22, Army Leadership*. The CES LD program is a structured, progressive and sequential program which broadens the targeted civilian educational training base, develops leader training and education that supports civilian leader career path requirements and professional development, and establishes lifelong learning and self development as integral parts of all civilian training programs.

The CES LD program includes an orientation course and three levels of leader development education. CES LD program architecture includes distributed learning modules, followed by resident courses, to achieve essential learning outcomes that support our emerging lifelong learning policy. The design, resourcing and implementation of the CES LD

program are the major supporting elements for implementing the desired civilian leader development end state. Implementation of the CES LD program will produce multi-skilled leaders with values, attributes, versatility and agility to operate effectively. The CES policies will support this system to ensure leaders achieve the right balance of education and training. Senior Service College and the Defense Leadership and Management Program are opportunities for civilians beyond the CES advanced level to assist in development for Senior Executive Service level positions.

## Experiences

Experiential development is a critical element in developing leaders. Assignments that promote confidence, innovation, and creative and critical thinking complement institutional training and will aid in growing leaders. Policy must address leaders expanding their knowledge base through experiences. Experiential learning through real work experiences such as rotational/developmental assignments, complementary experiences, deployments, or crossover type experiences in other functions will provide Army civilians with a greater knowledge of how the Army operates. Leaders who operate in a broader framework tend to adapt to processes and solve problems more easily.

## Senior Service College (SSC)

SSC is at the apex of a civilian's leader development education and prepares civilians for positions of greatest responsibility. SSC attendance is available by competitive process for civilians who require an understanding of complex policy and operational challenges and increased knowledge of the national security mission. Upon graduation from SSC, civilians are assigned to positions of greater responsibility in another organization, which

enhances their leader development experience.

## Defense Leadership and Management Program (DLAMP)

DLAMP is the premier DOD executive development program for senior Defense civilians and a key component of the DOD succession planning strategy. DLAMP provides the means to mature a cadre of highly capable senior civilian leaders with a joint perspective on managing the department's workforce and programs. The goal of DLAMP is to develop senior civilian leaders with a DOD-wide perspective; substantive knowledge of the national security mission; a shared understanding, trust and sense of mission with military counterparts; and strong leadership and management skills.

DLAMP is a comprehensive program of education and development. Core elements include an advanced degree from an accredited institution, graduate courses in business management and public policy areas, SSC, and leadership courses designed to enhance executive core qualifications. Although there is no guarantee of advancement, DLAMP, when combined with increasingly responsible work assignments, prepares individuals for senior leadership positions throughout DOD.

## Professional Military Education

The Army requires Soldiers and leaders, steeped in the warfighting capabilities and doctrine, to be knowledgeable and experienced in how to analyze the ability of their units to operate and sustain themselves on the battlefield. Warfighting modules will teach leaders standard U.S. Army techniques and procedures for tactical decision making and the tactical employment of companies, battalions and brigades in combined arms,

full-spectrum operations. Warfighting training will be tactically focused, hands-on and execution-oriented, and will culminate with an exercise that stresses and develops the leaders' ability to rapidly make decisions and to apply the elements of combat power within the operational framework of full-spectrum operations. The intent of the warfighting curriculum is to produce leaders who are highly skilled in combined arms maneuver, support and sustainment of companies, battalions and brigades as part of the joint team.

### **Officer Education System (OES)**

The Officer Education System (OES) is being adapted to meet the needs of the transforming Army and the realities of the contemporary operating environment (COE). We have begun to adapt instructions to include the new operational environment and will gradually expand this to incorporate all programs of instruction (POIs) and training scenarios. The Army requires leaders who are able to manage training in order to prepare their unit for operations. Leaders must understand the development of a Mission Essential Task List (METL) as well as the entire Army training management cycle and the other tenets set forth in *FM 7-0, Training the Force*, and *FM 7-1, Battle Focused Training*.

The Army will develop a single world-class leadership development education system with distinct components for warrant officers, company grade, and field grade officers. Ultimately, the Army will combine warrant officer, company grade, and field grade officer training, as appropriate, wherever required common officer skills are taught.

### **Basic Officer Leader Course**

The Basic Officer Leader Course (BOLC) incorporates recommendations from the Army

Training and Leader Development Officer Panel and the OES Needs Analysis Study. It transforms precommissioning, pre-appointment, and officer basic courses to better prepare second lieutenants and warrant officers (WO1) to achieve success in the COE immediately upon arrival in their first unit. The objective is to develop technically competent, confident and adaptable platoon leaders grounded in leadership and field craft, regardless of branch, who embody the Army Values and the Warrior Ethos and who are physically and mentally strong. To achieve this objective, BOLC capitalizes on experience-based training, logically structured to build upon and reemphasize previous lessons learned.

**Phase I (Precommissioning/Preappointment).** The traditional commissioning and appointment sources are revising their curricula to train and educate the majority of performance tasks (basic Soldier and leader skills) commonly performed by all lieutenants and WO1s. Each officer candidate, warrant officer candidate or cadet, regardless of commissioning or appointment source, will be trained using the same standards and POIs. They will be steeped in the values and traditions of the Army, and will possess a clearer knowledge of what it means to be an officer.

**Phase II (Experiential Leader Training).** Upon graduation/commissioning, lieutenants attend the second, branch-immaterial phase of BOLC. This course is physically and mentally challenging, with 80 percent of the training conducted hands-on in a tactical or field environment. The platoon is the focal point for all activities, as each student is evaluated in a series of leadership positions under varying conditions/situations. A highly trained cadre of officers and NCOs continually assess the performance of and counsels each student. Officer students also participate in several peer reviews and self-assessments.

The curricula includes advanced land navigation training; rifle marksmanship; weapons familiarization; practical exercises in leadership; chemical, biological, radiological and nuclear (CBRN) operations; and use of night vision equipment. It culminates in squad and platoon situational-training exercises using COE scenarios (including urban terrain and convoy operations). Students also complete several confidence courses containing obstacles that challenge students to overcome personal fears. Officers depart BOLC II with greater confidence, an increased appreciation for the branches of the combined arms, and a clearer picture of their personal strengths and weaknesses. To date, four highly successful pilot courses have been conducted. To implement the recommendations of the Army Training and Leader Development Panel, newly appointed warrant officers (WO1) participated in the BOLC II pilot course program. Full integration of WO1s into BOLC II is being studied.

**Phase III (Branch Specific Training).** After gaining confidence in their abilities to lead small units, officers are prepared to learn the specialized skills, doctrine, tactics and techniques associated with their specific branch. Upon graduation, officers will proceed to their first unit or attend additional assignment-specific training (airborne, Ranger, language school, etc.).

Curriculum refinement for the BOLC pilot program will continue in FY06, reflecting the needs of the Army and recommendations from graduates. When implemented, BOLC will provide the institutional training and education required to develop the high-quality officers needed to lead the future force.

**Warrant Officer Basic Course (Branch Specific Training)** is a functional specialty development course taught at various propo-

nent schools that prepares newly appointed officers for their assignments as WO1s. Training focuses on technical skills and leadership. Needs analyses of the current 15 Warrant Officer Basic Courses are being conducted to validate existing training and education programs, determine future requirements, and identify opportunities for integration with officer basic courses.

**Captains Professional Military Education (PME)** is being redesigned based on feedback from numerous survey results, determination of needs for training in specific training and directives from higher authorities. Transformation of captains education will more fully prepare the professional company grade officer for success in the COE. Analysis of the data indicates that emphasis is needed on assignment-tailored training focusing on specific primary staff positions, realistic scenario-driven command training, and available options to allow officers to attend the Captains Career Course with minimal time away from the family. Future Captains PME will feature:

- Full-spectrum, operations-based agile leader development
- Emphasis on the importance of living the Warrior Ethos
- Branch and combined arms focus
- Introduction to joint, interagency, intergovernmental and multinational operations
- Knowledge of and skills in branch-related digital systems
- Understanding of the effects of cultural awareness on military operations
- Leverage learning technologies
- Potential options for attendance in PCS or TDY status

- Synchronized to support the Modular Force initiative and the Army Force Generation (ARFORGEN) model

The redesign of Captains PME currently underway requires branches to update task analyses of all company commander and staff officer positions. This leads to determining which common core and branch technical Terminal Learning Objectives must be developed/revised for instruction, with validation and quality assurance of all present Captains Career Courses following. The methods of instruction are being reevaluated to promote a realistic, hands-on experience to stimulate better recall during all situations, most importantly in a combat environment. The end state is a Captains PME that prepares captains to function in the COE, making them more productive and contributing to decisive mission accomplishment.

**Warrant Officer Advanced Course (Branch-specific Training)** focuses on tactical and technical skills, and leadership at company, battalion and above. The 15 proponents that administer WOAC are conducting formal needs analyses to validate existing training and education systems, determine future requirements, and identify opportunities to integrate WOAC with Captain's PME.

**Intermediate Level Education (ILE)** consists of two phases: the core curriculum course and the qualification course. The core course is a 13-week military education level (MEL) 4 awarding course (similar to term I of Command and General Staff Officer Course (CGSOC)) for officers in the four career fields. A 28-week qualification course (similar to terms II and III of CGSOC) is being developed by CGSC for officers in the operations career field. Each functional area (FA) in the other three career fields will conduct individual qualification courses ranging from two to 178

weeks in length. The core course provides Army officers a common MEL 4 education and Joint Professional Military Education (JPME) I credit; qualification courses prepare officers for duties in their respective career field or FA. International military students (IMS) will continue to join their U.S. counterparts in most OES and ILE courses (core and FA).

**Army War College.** The Army War College is the Senior Service College for the Army. It prepares officers and civilians for senior leadership in the Army, Defense, and related departments and agencies by professional military education in national security affairs, with emphasis on the development and employment of military forces in land warfare. The course provides graduates a common MEL1 education and JPME II credit. The resident course lasts 44 weeks. Its parallel is a corresponding studies version which takes two years and includes two two-week resident phases. Graduates are granted masters degrees in strategic studies.

**Pre-Command Course (PCC).** Commanders selected for battalion and brigade command attend the PCC prior to assuming their assignments. Officers attend a one- to two-week course conducted by their branch. Here, the command designees receive necessary branch technical and tactical training. The designees then attend a one-week course conducted at Fort Leavenworth, KS, that includes command team training for the commander and spouse. Selected command designees are then enrolled in the two-week Tactical Commanders' Development Program, a course that focuses on synchronization on the battlefield. Designees may also attend legal, logistics, and language training as their requirements dictate.

**Warrant Officer Staff Course (WOSC)** is a four-week, MEL 4 awarding, resident course

focused on staff officer and leadership skills at battalion and above. The WOSC educates CW3s and CW4s in adaptive leadership, cultural awareness, contemporary operating environment, communication, staff skills, critical/creative problem solving and decision making to support the full spectrum of Army operations. The WOSC is undergoing a needs analysis to validate training and education, determine future requirements, and identify opportunities to integrate Warrant Officer MEL 4 with ILE.

**Warrant Officer Senior Staff Course (WOSSC)** is a two-week, MEL 1 awarding, resident course. WOSSC is the capstone course for warrant officer PME, and provides a master-level officer with broad Army-level perspective required for assignment to CW5 positions as technical, functional, and branch systems integrators and trainers at the tactical, operational and limited strategic levels in the JIIM. WOSSC focuses on “how the Army runs,” relevant Army policies, programs and special items of interest. WOSSC is currently undergoing a needs analysis to validate training and education requirements, determine future requirements and identify elements of the Army War College curriculum to include or replicate.

### **NCO Education System (NCOES)**

NCOES is changing to develop leaders for current and future requirements of the Army and the Joint Force, within the context of an Army at war, modularity, force stabilization, and joint and expeditionary capabilities. NCOES is changing to reinforce the Warrior Ethos, address lessons learned in recent operations, cultural awareness, and introduce digitization. Lessons learned have been integrated into the new design in the form of warrior tasks and drills, combat veteran experiences, observations and analyses of opera-

tions, and products from the Center for Army Lessons Learned (CALL). The Army Training and Doctrine Command (TRADOC) has also conducted a review of course lengths, timing and common core instruction to determine relevancy and eliminate redundancies.

**Warrior Leader Course.** The Primary Leadership Development Course (PLDC) has been renamed the Warrior Leader Course. The effect of this change is not only reflected in the name, but also in the course. The new WLC has been redesigned into a course that is unrecognizable from the old PLDC, and the curriculum of the WLC has been revitalized to meet the needs of Soldiers of the future.

The WLC is now tailored to our COE and the time in which we live. Every student now receives detailed squad-level combat leader training. This learner-centered and outcome-based approach reinforces small unit TTPs. The course incorporates recent lessons learned. With this, the course constantly adapts to world threats by incorporating the experience from the battlefield. Combat skills are trained and reinforced upon arrival by the inclusion of weapons immersion. This combat focus culminates in the 96-hour Situational Training Exercise (STX). The nine battle drills and 39 warrior tasks are the framework driving the planning, preparation, rehearsal and execution of all squad operations. This STX is competency-based, battle-focused, combat scenario, and troop-leading procedure driven. Training and evaluation as a combat leader now applies to every Soldier. Evaluation is centered on their ability to demonstrate troop-leading procedures in current threat-based scenarios.

**Basic NCO Course (BNCOC)—Educating the Section and Squad Leader.** At the SGT/SGT(P) level, we will continue to develop leaders who are masters of their military occu-

pational specialties (MOSs) as well as expert trainers and training managers. At this level, we will continue to focus on leading and training inside the platoon formation and providing the initial exposure to core staff skills needed inside the battalion formation. We will provide training on:

- Creating SGT/SGT(P) with cognitive thinking skills who are adaptive self-aware agile leaders
- Developing defined cultural awareness learning processes linked to the COE
- Providing performance-based training using the concept of leader labs
- Focusing on leading and training within platoons, sections and squads
- Common core, self-development and enhanced MOS technical and tactical skills
- Applying and sustaining lessons learned from the COE
- Executing multi-echelon, shared training events with other ranks
- Providing basic MOS specific staff skills needed in the battalion and brigade tactical operations centers (TOCs)

**Advanced NCO Course (ANCOC)—Educating the Platoon Sergeant.** At the SSG/SFC level, the focus needs to expand from MOS-specific training to the battlefield operating system. The focus becomes leading and training inside the company formation and expanding the NCO's staff skills to those needed inside the brigade formation. The officer-NCO relationship receives more attention at this level. At this level, we will train on:

- Creating an SSG/SSG(P) with the required skills to perform the duties of a platoon sergeant or staff NCO

- Developing cultural awareness learning processes linked to the COE
- MOS-specific skills
- Leading and training the platoon and function on the battalion staff
- Expanded operational terms, graphics, and specific MOS battle staff skills at the battalion and brigade levels
- Leading and training inside the company and platoon formation and the relationship to the company team and battalion task force
- More multi-echelon, common/shared training events with other ranks
- Skills, knowledge and attributes that foster conceptual thinking and reasoning
- Officer-NCO relationship inside the company/battery/troop

**Educating the Battle Staff NCO—Battle Staff Course.** A Battle Staff Course curriculum that provides the Army an NCO capable of conducting battalion/brigade/unit of execution level operational skills combined with performing in a joint or combined force land command. The battle staff NCO will have the ability to function on staffs in multiple environments or serve on several subcomponents of given units within or outside the organization.

Course content will draw from NCOES those skills to sustain a sequential and progressive flow with the lower and higher learning levels. It contains integrated training, eliminates redundancy and achieves the following objectives:

- Expanded battle skills at the brigade and higher levels, joint and multinational commands and relationships

- Expansion of cultural awareness, antiterrorism, and function of each component of the Brigade Combat Teams (BCTs)
- Shared training events with the CTCs and proponents
- Skills, knowledge and attitudes that foster conceptual thinking and reasoning
- Focus on officer-NCO functions inside the TOC at all levels
- CBT, CSS and CS integration with expanded digital performance-oriented training
- Missions, functions and organizations of multicomponent/national units
- Application of lessons learned in operations planning with dynamic scenarios
- Threat identification and planning

**Educating the First Sergeant.** Course curriculum provides the Army a first sergeant capable of conducting company-level operations in multiple environments. The first sergeant will have the ability to function in the contemporary operating environment providing input for the coordination of combat, combat support, and combat service support efforts at echelons above company. The course contains deliberate, guided self-development specified by component (reserve, National Guard (NG) and active) to facilitate the administrative needs of each organization. A warfighter focus achieves the following objectives:

- Warrior focus: CBT, CSS and CS integration
- Digital performance-oriented training
- Combat operations
- Specified component focus

- How to integrate warrior tasks and drills into the company training plan
- Expansion of cultural awareness
- Skills, knowledge and attitudes that foster conceptual thinking and reasoning
- Joint relationships
- Application of lessons learned with dynamic scenarios
- Force protection

**Sergeant Major Course (SMC)—Educating the MSG/SGM/CSM.** The capstone of NCOES continues to be the Sergeant Major Course. The SMC will transform to meet the senior NCO professional development requirements of the Modular Force and an Army at war. It will foster the leadership skills to develop adaptive leaders within assigned organizations, and provide mastery of training management and conceptual learning skills. This capstone course of NCOES will remain sequential, progressive, vertically and horizontally integrated, dynamic and relevant, and achieve the following objectives:

- Determine cultural awareness learning processes linked to the contemporary operating environment
- Advanced operations skills at the BCT through corps levels with joint capabilities.
- Determine strategy and plans for warrior tasks and drills
- How to lead and train at battalion and above
- Skills, knowledge and attitudes that foster conceptual thinking and reasoning
- Process application of lessons learned

- Internal specialty (CS, CSS and CA) tracks to meet projected assignment
- Force Management Program (How the Army runs)
- Shared training where curriculum aligns with SMC and Intermediate Level Education (ILE)
- Joint relationships

## Army Distributed Learning

Distributed Learning (DL) is the delivery of training to Soldiers and units through multiple means and technologies. DL provides students, leaders and units with access to essential information and training anytime and anywhere. It represents a powerful capability in which the proper balance of course content and delivery technologies are provided when and where they will have the greatest impact on force readiness.

The Army Distributed Learning Program (TADLP) is a Department of the Army (DA) program that was approved for implementation in 1996. TADLP is funded for FY98-11 to field and operate digital training facilities (DTF), deployed digital training campuses (DDTC), Army National Guard (ARNG) DL classrooms, the Army Learning Management System (ALMS), and the redesign of selected Army training and education materials for DL delivery. The mission of TADLP is to improve training, enhance force readiness and support Army transformation by exploiting current and emerging technologies to facilitate the development of self-aware and adaptive leaders through lifelong learning, and the delivery of the right training and education to the right Soldier and leader at the right time and place. The TADLP Campaign Plan contains the requirements, policies and management

tasks to ensure the program's support of Army readiness.

**Infrastructure.** TADLP is an approved Army program that is integrated with the Army RC. TADLP infrastructure provides learners with access to individual computers, video-tele-training technology, and other technologies needed for learning in a DL environment leveraging the Army network architecture. TADLP DTFs and ARNG DL classrooms have been fielded throughout CONUS and OCONUS to provide access to 95 percent of the force (AC and RC).

**Courseware.** Selected courses are being redesigned to provide DL training phases, modules and individual tasks, allowing students to participate in synchronous and asynchronous interactive multimedia training. Selection of courses for DL redesign is based on Army readiness requirements, priorities of the COE, and high-level interest of senior Army leaders. Under the current plan, over 525 courses will be redesigned for DL delivery by FY11. TADLP is currently moving to task-based DL products, which will facilitate quicker production, higher relevance to COE, and much broader reusability in the Army and throughout DOD.

**Classroom XXI Program (CRXXI).** CRXXI provides training modernization that enhances TADLP Digital Training Facilities at Army resident schools. This program improves training provided through the schools and allows the broadcast of training to remote TADLP DTFs. Also, CRXXI establishes Army standards for instructional technology capabilities that are Soldier-centered and design and architectural standards for classrooms. CRXXI is scheduled for completion by the end of FY14, with a total of 270 classrooms to be fielded.

## Self-Development

The Army must have Soldiers and leaders who continually seek to improve their knowledge, skills and abilities. Self-development initiatives contribute to a leader's development by focusing on maximizing strengths, minimizing weaknesses, and ensuring that

of the leader development program is a joint venture between the individual and his or her chain of command.

Self-development is empowered by individuals' acceptance and commitment to lifelong learning wherever they are located. Lifelong learning fills knowledge gaps and

provides greater depth and breadth of knowledge that educational and operational experiences do not provide. The single most critical element of lifelong learning is feedback. Feedback sets the basis for increasing self-awareness and identifying individual Soldier and leader developmental needs. This strategy must integrate training and education content and materials with oper-

ational experiences, assessments and feedback to ensure effective learning of required skills, knowledge and attributes.



Figure C-2. Soldier and Leader Development

professional and personal goals, needs, and objectives are realized. Self-development is a continual, career-long process. It takes place during institutional training and development and during operational assignments, and should stretch and broaden the leader beyond the job or training requirements. Self-study, professional reading programs and civilian education courses support the individual's developmental goals. Self-development supports the requirement for all leaders to be self-aware—to know their strengths and weaknesses in order to take the necessary steps to improve their skills, knowledge and attributes.

The focus of self-development is twofold: to fill individual Soldier or leader training, experience and education voids; and to ensure the Soldier meets personal and professional goals. The individual self-development portion

## Operational Experience

The Army exists to provide trained and ready forces to Combatant Commanders. Each unit commander is primarily responsible to ensure his unit can perform as directed. When given a directed mission, the commander adjusts his unit's Mission Essential Task List (METL) and training to focus on the directed mission. In absence of a directed mission, the commander prepares his unit to perform those core METL tasks that enable his unit to respond as doctrinally designed to missions from across the range of military operations in the contemporary operating environment. Army-approved training strategies for different types of units (i.e., Combined Arms Train-

ing Strategies and Army Weapons Training Strategies) enable the commander to train on mission essential tasks by defining the training events that the Army will support with resources. Life-cycle units, in particular, closely follow Army-approved training strategies during their train-up period to ensure the unit builds proficiency and is validated for deployment/employment within requisite time lines.

The Army training system must continue to enhance its capability to focus support of units that have received a directed mission, are preparing to deploy, or have deployed. The training support system must fully service the directed mission at the unit's home station; at mobilization sites; at the unit's mission rehearsal exercise location; at power generation/support platforms; at theater reception, staging, and onward movement locations; and where the unit is employed. Unit leaders must have access to centers of excellence for doctrine and TTPs and to lessons learned by similarly employed forces; must have a user-friendly training management tool that reduces training planning time and allows tracking of all unit training requirements and performance evaluations; must have training support products that enable units to practice mission essential tasks with realistic interaction with other friendly team members and against opposing forces; must be challenged by a mission rehearsal exercise before deploying when circumstances allow; must be able to plan and rehearse missions assigned in theater; must have job aids that enable Soldiers to perform difficult or important tasks to high standard; and must be able to quickly distribute lessons learned from operations and benefit from other units' lessons learned.

## Home Station Training

Most time available for units to train occurs while units are at their home station (installations, ARNG armories, USAR centers, and local/regional training areas). Home station is where individual skills and collective proficiency are honed—where unit readiness and cohesion are formed. Because units have a finite amount of time before they must be ready for deployment, home station training must be optimized. Our goal is to provide units the ability to train at home station on the core missions they were doctrinally designed to accomplish across the full range of military operations in a COE with JIIM team members; and then refocus training on a directed mission, if assigned. To accomplish these critical training events and tasks, training must be supported at home stations with an adequate mix of training enablers—ground/air operating funds, LVC training capability, aids, devices, simulations, instrumentation, ammunition, live-fire ranges, and maneuver training areas.

## Joint, Interagency, Intergovernmental, Multinational (JIIM) Training

Contemporary operating environments increasingly require seamless integration of JIIM operating elements. Accordingly, the Army is ensuring its training capability is nested within the Joint National Training Capability. Furthermore, Army leader development and training programs are increasingly emphasizing JIIM context.

Deploying units must have the opportunity to practice their directed mission just as they will perform it—within a JIIM context. Units must have the capability to routinely incorporate into mission-focused training events consideration of JIIM planning, command and control and execution. Home station and deployed

training capabilities should provide Soldiers, leaders and battle staffs with the means to conduct training in a JIIM environment. To improve tactical and leader development, common scenarios that allow execution-centric capability for planning and coordinating simultaneous, full-range military operations in JIIM environments are required to enable integrated, constructive, simulation-based training. JIIM context must become the norm during training at the Army's Combat Training Centers. The end state is Army Soldiers, leaders and units fully prepared to effectively and efficiently function within the JIIM team wherever required by coalition operations.

### Combat Training Centers

The CTC program is comprised of the Battle Command Training Program (BCTP), Joint Multinational Readiness Center (JMRC) (formerly Combat Maneuver Training Center (CMT)), Joint Readiness Training Center (JRTC) and National Training Center (NTC), and integrates training for a Joint National Training Capability (JNTC). The CTC rotations remain the Army's capstone training events for battalions, BCTs, divisions, corps and armies. Their focus remains unit readiness and leader development. The primary purpose of the CTCs is to develop ready units and self-aware, adaptive leaders for a directed mission or full-spectrum JIIM operations. CTCs will accomplish this by integrating a contemporary and joint operational environment into all training. This environment will potentially include simultaneous, noncontiguous, and continuous operations in a distributed, global, LVC training capability under a JIIM context. Army units will experience a rigorous fight in offensive, defensive, and stability and support operations against a free-thinking and adaptable opposing force. The battlefield will be fully arrayed to maximize stress on digital C4ISR systems. Complex

terrain including urban terrain will be a part of each rotation. Special Operating Forces will be appropriately integrated throughout rotations, as will realistic combat service support play to stress the logistics structure. Deployment tasks will remain an important aspect of each rotation. Instrumented feedback for both formal and informal after action reviews (AARs) will facilitate sharing of lessons learned to unit leaders, home station, institutions and deployed units.

Expanding reach of the CTCs will be necessary to support the increased number of brigades preparing for deployment in a modular Army. Accordingly, the Army will explore development of an exportable CTC capability with deployable instrumentation and AAR enablers.

### Training Wherever, Whenever

As discussed above, Soldiers, leaders and units must have the ability to focus and refocus training as their mission is refined or shifts through the train-up/alert/mobilize/deploy/stage/rehearse mission/employ/re-employ cycle. In the future, training functionality will operate within the Army's high-speed and high-capacity backbone communications network providing training support for commanders, staffs and units wherever the unit is located—at home station, deployed or on the move. Integrated network capabilities will enable units to plan, prepare, train, rehearse and execute multiple missions and tasks simultaneously. Training capabilities will provide reachback access to information resources at any level and for any function.

Even after training functionality is fully embedded in communication, equipment and weapon systems, the Army training system must be responsive to the needs of operational commanders by providing required training



Figure C-3. How We Will Train in the Future

products like training support packages that address operational concerns, performance assistance that helps Soldiers meet mission demands, and analysis/ dissemination of lessons learned.

## Training Modernization

As the Army continues to reorganize and transform into modular units and field new equipment, training transformation must keep pace, ensuring our Soldiers and leaders can train and maintain the high level of readiness that these new organizations and our National Military Strategy demand. Training transforms people, equipment and organizations into a capable unit. Training modernization provides commanders with the “enablers” required by the Army Training Strategy and the ARFORGEN model to execute Soldier, leader, unit and battle staff training to standard, anytime and anywhere. The Army’s training modernization plan is synchronized with the Army Campaign Plan to ensure critical training enablers support transformation and an Army at war.

## Training Support System (TSS)

The TSS, generally described in FM 7-0 and FM 7-1, represents the concept for how training enabler resources support the Army Training Strategy, the Combined Arms Training Strategies (CATS), and the execution of training in both AC and RC units while at home station, deployed or at the combat training centers. TSS also describes how enablers support Soldier training

in TRADOC schools. More formally, it has been described as a system of systems that provides the networked, integrated, interoperable training support capabilities that are necessary to enable operationally relevant JIM training for Soldiers and units anytime, anywhere. TSS is inextricably linked to the execution of training by providing training products and training services to meet the challenges of training an Army, with a joint and expeditionary mindset undergoing transformation.

**Training Support System Products** are those tangible, enabling training capabilities that directly support the execution of Soldier, leader and unit collective training at home station, the combat training centers, and while deployed, as well as the enablers that support Soldier training in the institutions. They include training aids, devices, simulations and simulators (TADSS), ranges, training facilities and instrumentation systems.

**Training Support System Services** provide resources to support installation and unit

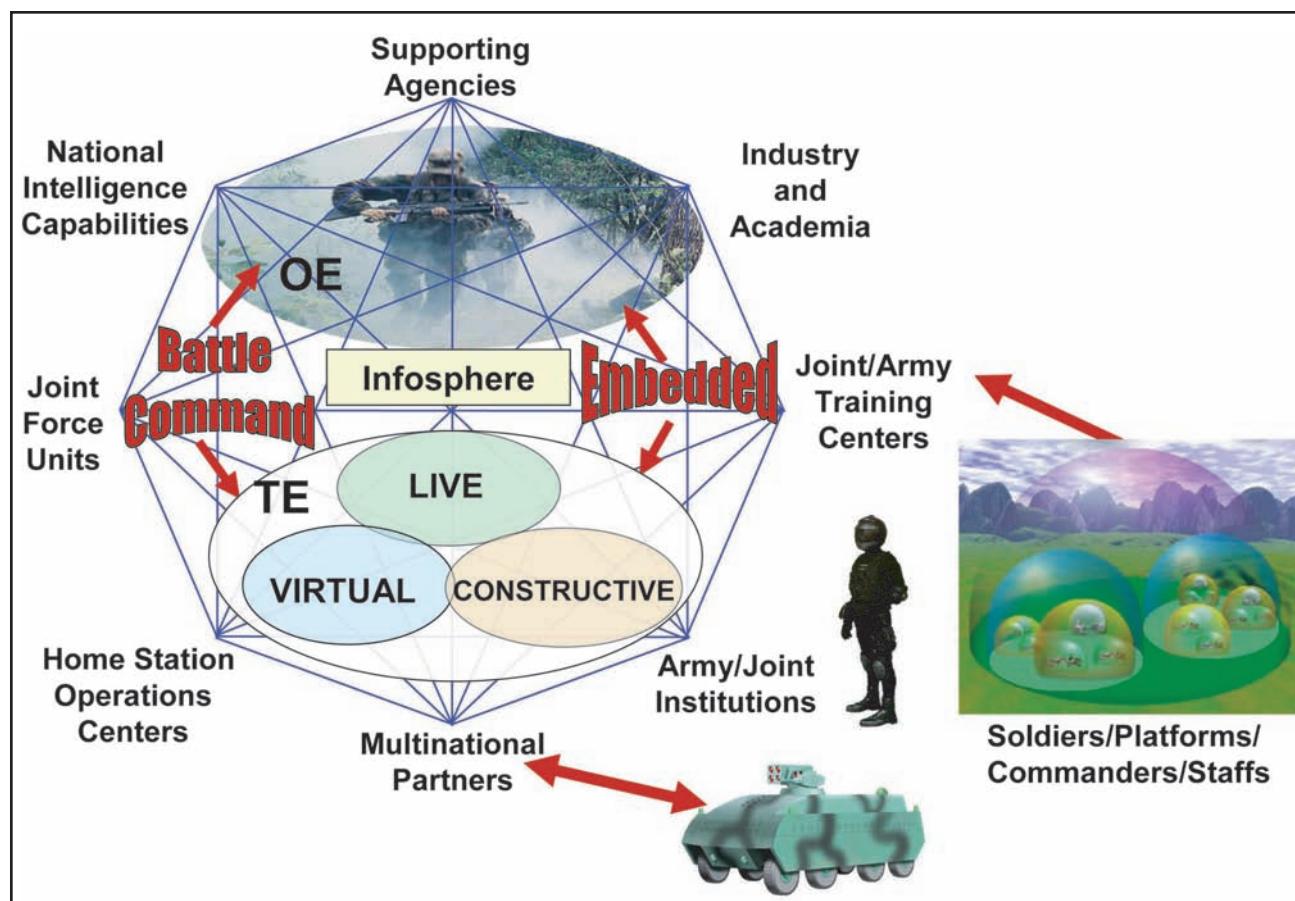


Figure C-4. Future Training Environment

training management and support structure associated with the delivery, operations and maintenance of the training support system products wherever training is conducted. It includes manpower and training support operations required to conduct range operations and maintain training land; the training managers, operators and technicians required to support the operations of simulation and simulator facilities; the training support centers and contract logistic support to sustain fielded training products; and instructors/operators for fielded TADSS. It also provides the means for the integration of products to interoperate in a common training environment.

**Training Support System Programs** products and services for LVC training are planned, programmed, budgeted and delivered through four major programs, to include: Sustainable

Range Program (live); Soldier Training Support Program (live); Battle Command Training Support Program (virtual and constructive); and CTC Modernization (live). Integration of these LVC training capabilities will be achieved with an LVC-IA. TSS programs are managed by the Training Directorate, Army G-3/5/7, supported by lead agents and combat developers at TRADOC Combined Arms Center, Training (CAC-T) and the Army Training Support Center (ATSC).

### Sustainable Range Program (SRP)

Live training is the cornerstone of operational success. The Army's Range and Training Land Strategy establishes priorities for investments in the transformation of ranges and training land to support the COE and future force. Key range transformation initiatives,

which include the Digital Range (both DMPRC and DMPTR), Battle Area Complex (BAX), and New Generation Army Targetry Systems (NGATS), are the first range products capable of supporting training the Future Combat Systems (FCS) weapon systems and maintaining the edge for current weapon systems. The instrumentation of the ranges, such as the DMPRC and BAX, is the critical step in testing the networked systems of the FCS-equipped BCT. These specific current force ranges will evolve to the future force range concept being developed by TRADOC.

**Range and Training Land Program (RTLTP)** identifies requirements and provides funds for Army range modernization. RTLTP is managed by Army G-3, Training Simulations Division (DAMO-TRS). It provides a range operations and modernization capabilities for the central management, prioritization, planning and programming of live-fire training ranges and maneuver training lands, including the design and construction activities associated with them and the targetry, devices and instrumentation installed on approved Army ranges. The RTLTP planning process integrates mission support, environmental stewardship and economic feasibility and defines procedures for determining range projects and training land requirements to support live-fire and maneuver training.

The following are the major sustainable range modernization projects currently programmed, planned and/or being developed.

**Army Targetry Systems (ATS)/New Generation Army Targetry Systems (NGATS).** ATS provides nondigital, live-fire ranges that incorporate infantry and armor targets, both stationary and moving. ATS portrays realistic threat target scenarios to the Soldier under simulated battlefield conditions. NGATS is the future Army ground targetry system that

will provide high-fidelity target signatures, evasive targets, shoot-back capability and remote scoring. Using COTS technology, NGATS will provide a more reliable system at lower cost. NGATS will also be capable of supporting unit training while deployed.

**Air Defense Artillery (ADA) Targets** provide targets and ancillary devices for ADA live-fire crew weapon qualification and training events currently resourced under the Standards in Training Commission (STRAC). They provide required training and opportunity training to the air defense Soldiers for gun and Stinger missile live fire.

**Instrumented/Digital Ranges.** The Instrumented/Digital Multi-Purpose Training Range and Range Complex provides modern ranges capable of training and stressing today's Soldiers and their digital equipment. It provides a realistic train-as-you-fight environment, using all available combat systems capabilities and digitally integrating those systems to manage all forces undergoing individual and collective live-fire training and qualification. DMPRC supports Table XII platoon qualification and company combined arms live-fire exercise (CALFEX); DMPTR provides Table VIII crew qualification. BAX is a training range designed to support the BCTs. The BAX will provide the BCT commander with a venue to train the majority of his force in one, or a combination of, linked training facilities. While the layout is typically to support combined arms training scenarios for Heavy BCTs (HBCTs), the individual and crew requirements were incorporated to allow specific weapons platform qualification. Instrumented/digital ranges are part of the Live Training Transformation-Family of Training Systems (LT2-FTS) and have been programmed for all the major installation with HBCTs.

**Integrated Military Operations on Urbanized Terrain Training System (I-MTS)** provides a melding of three separate but similar thrust efforts into a single program to provide the capability to train units within an urban terrain environment at home station and the combat training centers. These programs are the transition military operations in urban terrain (MOUT) sites, the Combined Arms MOUT Task Force training sites and other MOUT facilities. I-MTS reduces acquisition and sustainment costs, leverages technologies and acquisitions, fosters horizontal technology integration (HTI) through commonalties and standards, synchronizes and integrates the collective efforts of the CTIA by leveraging near-term requirements, and supports the objectives of the Urban Operations Training Strategy.

**Battle Effects Simulator (BES)** is a propane-charged firing system without pyrotechnics to provide battlefield effects on live fire ranges. Characteristics include 35 shots minimum per charge, excellent thermal signature and versatile audio-visual effects simulator. It can be configured as a weapon firing or a hit effects simulator.

**Precision Marksmanship** provides for enhanced individual weapons proficiency training in the institutional base and in units. Specific individual weapons type ranges are provided with precision-scoring capability to support basic and specialized skills. The precision marksmanship system supports Modular Force conversion and the global war on terrorism.

**Aerial Weapons Scoring System (AWSS)** provides a live-fire qualification capability for attack helicopter units. The AWSS is an integrated group of computer-controlled sensors used to score live-fire helicopter gunnery exercises at designated gunnery ranges. AWSS

provides near real-time objective scoring results of live-fire exercises conducted from attack helicopters firing .50-caliber, 7.62-, 20- and 30-mm projectiles, and 2.75 inch training rockets. The AWSS also has the capability to objectively score simulated Hellfire missile engagements for helicopters equipped with the Hellfire training missile and laser designator. AWSS supports the aviation modular force conversion and a critical training support system for aviation gunnery.

**Deployable Range Packages (DARP)** provides a capability for deploying units to conduct live-fire training in theater. It can also be used as Training Augmentation Range Packages (TARP) for MACOMs, the Installation Management Agency (IMA) and theaters to adapt home station ranges, changing live-fire training standards driven by the COE.

### **Soldier Training Support Programs**

Soldier Training Support programs provide training support system capabilities required by the functional (HBCT, IBCT and FIRES) CATS for Soldier and small-unit collective training.

**Multiple Integrated Laser Engagement Systems (MILES) Replacement** provides tactical engagement simulation for direct-fire, force-on-force training using eye-safe laser "bullets." The MILES replacement program provides a much more adaptable and user-friendly capability than the current MILES system that has been in the inventory for over 25 years. MILES training has proven to dramatically increase the combat readiness and fighting effectiveness of military forces by providing realistic force-on-force engagement simulation. Enhancements include discrete player identification for all participants, enhanced audio-visual cueing effects, increased boresight retention and accuracy,

event recording and display, increased programmability of weapon characteristics, and increased ability to account for side, flank, corner and rear shots.

**Engagement Skills Trainer (EST) 2000** is an indoor, multipurpose, multi-lane, small arms, crew-served and individual anti-tank training simulator that trains individual marksmanship; unit collective gunnery and tactical training for static dismounted infantry, scout, engineer, military police squads; and CS/CSS elements. EST 2000 provides the capability to build and sustain marksmanship, squad and team fire distribution and control, and judgmental use of force training using computer-generated imagery. EST 2000 is in production and has been deployed into theater to sustain critical marksmanship training for units that are deployed. It has also been used by deploying units to maintain skills when not conducting live-fire training.

**Laser Marksmanship Training System (LMTS)** is an eye-safe, laser-based trainer that supports attaining, maintaining and enhancing marksmanship skill proficiency without the use of live fire. LMTS supports direct-fire weapons from handguns through machine guns (M2, M4, M9, M16, M21, M60, M240B, M249, MK19 and AT4). Capabilities include training for basic rifle and pistol marksmanship, machine gun training, counter-sniper training and tactical training, as well as night fighting using night vision devices for all weapons, thermal sights and NBC operations.

**One Tactical Engagement Simulation System (OneTESS)** provides an increased capability for tactical engagement simulations for all weapon systems. OneTESS is a family of tactical engagement simulation systems that supports force-on-force and force-on-target training exercises at brigade and

below, in all battlefield operating systems, at home station, maneuver CTCs and deployed sites. The system will support the training of proper engagement procedures; simulate weapon systems accuracy and effects; and stimulate detectors, sensors, monitors and countermeasures. OneTESS will use a common architecture compliant with the Common Training Instrumentation Architecture (CTIA). The Future Combat Systems will incorporate the OneTESS capability.

**Home Station Instrumentation Training System (HITS)** is part of the Live Training Transformation Family of Training Systems that will provide an instrumented training capability at home stations in support of the ARFORGEN model. It provides objective data collection of unit performance in force-on-force, force-on-target and live-fire training so units can better assess training. An Initial-HITS (I-HITS) system has been fielded to provide a very limited capability to the field until more funding can be programmed.

**Call for Fire Trainer (CFFT)** is a collective training system that provides a simulated battlefield for training forward observers at the institutional and unit levels. The system modernizes the current GuardFist capability and can be deployed to support training of deployed forces.

**Virtual Helicopter Aircrew Trainer (VHAT)** is a virtual training system for helicopter door gunners and nonrated crew members of cargo and utility helicopters in the conduct of door gunnery, sling-load operations, crew coordination, actions on contact, and sectoring and coordinating fires.

**Common Gunnery Architecture (CGA)** is an initiative that offers an integrated approach to meet common gunnery training requirements. CGA will not combine nor collapse other

systems into a single gunnery trainer; rather it retains system-/platform-specific hardware solutions (thereby continuing to replicate crew operating environments). CGA will standardize the use of such software baselines as One Semi-Automated Forces (OneSAF) Objective System (OOS) and Synthetic Environment Core (SE Core) to enable the training of crews across the full spectrum of operations, in urban and complex terrain, as well as more conventional environments (desert, woodland, etc.) using geo-typical and geo-specific terrain databases. The CGA eliminates the costs and developmental time lines associated with maintaining separate software baselines for each individual system.

**Joint Fires and Effects Trainer System (JFETS)** is an immersive trainer that has moved from a technology demonstrator to a prototype trainer since September 2004 and trained 4ID and 75th Rangers preparing to deploy to Operation Iraqi Freedom (OIF), and over 700 officers, NCOs, and Soldiers. Soldiers are able to train under conditions that are not achievable in the current generation of simulators. This experience is active, as opposed to passive, and is capable of training the joint fires observer (JFO)—regardless of Service. The system will manipulate visual and physical space to give the observer the experience of being in and surrounded by a specific environment that can be reconfigured. JFETS is composed of four modules: the Urban Terrain Module (UTM), configured to be a room overlooking a middle eastern city; the Open Terrain Module (OTM), configured to represent open desert, or other terrain as needed; the Fires and Effects Command Module (FECM); and the Operational Briefing Area (OBA)/AAR. As common gunnery architecture and OneSAF capabilities spiral, JFETS will be able to connect to training systems across the Services and allow virtual training, both individual and collective.

## **Battle Command Training Support Programs**

Battle Command Training Support Programs provide the virtual and constructive training support systems required by the Army training strategies. Virtual simulators support the gated training strategies by providing commanders the tools to practice on crew and unit collective tasks prior to conducting live training. Constructive simulations provide commanders the capability to train their leaders and battle staffs on Mission Essential Task List through the use of simulations. Both have been used extensively for MRXs.

Battle Command Training Support provides training architectures. Training architectures provide the means to ensure integration and interoperability across TSS product lines and with complementary systems.

**Live-Virtual-Constructive-Integrated Architecture (LVC-IA)** is a network-centric linkage that collects, retrieves and exchanges simulation data between live instrumentation and simulation systems, virtual simulators and simulations, and constructive simulations (LVC components). Integrating this data creates a holistic, simulated battlespace and conditions created by the contemporary operational environment. In this environment, commanders and their units can train and rehearse mission essential tasks required to gain and maintain skill proficiency in battlespace awareness, force application, focused logistics and protection. LVC-IA is a critical component to training transformation and providing the optimum training environment for the future combat force.

**Common Training Instrumentation Architecture (CTIA)** is a component-based architecture that uses common standards, interfaces and protocols with other Synthetic Training

Environment (STE) training systems. Along with OneTESS, CTIA provides the foundation of the Army's Live Training Transformation (LT2) product line for training instrumentation systems that support home station (DMPRC, MOUT, force-on-force, etc.), deployed and maneuver CTC live-training requirements. CTIA's common, component-based architecture approach ensures cost-effective modernization and will evolve to support the future force's training requirements. CTIA is the underlying architecture of the LT2-FTS, and it supports Training Transformation (T2).

**Army Training Information Architecture (ATIA)** is an integrated suite of web-based training applications—DITSCAP-certified at Level 3—that supports the development, storage and delivery, and management of training and training products. Major components of the system currently include the Soldier's Training Homepage, Reimer Digital Library, Training and Doctrine Development Tool (TDDT)/CATS development tool, and selected training resource management and unit training management capabilities.

**Fixed Tactical Internet (FTI)** is a permanently installed network of Enhanced Position Location Reporting System (EPLRS) radio sets with an EPLRS Network Manager that enables digital communications across the Army's Tactical Internet. The FTI provides the primary means for providing on-demand digital communications in support of testing, training, maintenance and experimentation at brigade and below. The FTI significantly reduces deployment of signal company assets every time a unit goes out to train. It is been fielded to installations fielded with the Stryker, M1A2 and M2A3 vehicles, as well as Fort Benning, Fort Knox and Fort Gordon. FTI does not provide a capability to train with a Blue Force Tracker or other non-EPLRS-based communications systems.

**Constructive Simulation Training** is the use of computer models and simulations to exercise the command and staff functions of units, from platoon through Joint Task Force. It is the primary means for training BCT and above organizations in the art of warfighting and is used extensively by deploying units for conducting MRXs. Constructive simulations permit multiple echelons of command and staff to execute their normal warfighting tasks in an extensive exercise without the resource constraints of large bodies of troops. It provides a versatile, cost-effective, low-overhead training environment that trains leaders how to visualize the battlespace and to make tactical decisions in a time-constrained, digitized environment. It also provides the "wraparound" for LVC integrated events and extending the battlespace to provide more realistic scenarios. Through the repetitive execution of tactical scenarios followed by AARs, commanders and staff officers gain a comprehensive understanding of the warfighting capability of their units, how their battle staffs synchronize the fight, and how to optimize Army Battle Command System (ABCS) to provide them situational awareness.

**Joint Land Component Constructive Training Capability (JLCCTC)** formerly known as Army Constructive Training Federation (ACTF) consists of a variety of current and projected simulations and supporting applications and hardware designed to address the training needs of the joint force land component commander (JFLCC) and Army Title X requirements across the range of military operations. The JLCCTC is a federation of simulations/models and the associated software tools required to compose, initialize, operate, tune and maintain a synthetic operational environment to support the conduct of collective command and staff training. The constructive models in the JLCCTC include CBS, Tactical Simulation (TACSIM), Combat

Service Support Training Simulation System (CSSTSS), Joint Conflict and Tactical Simulation (JCATS), Digital BattleStaff Sustainment Trainer (DBST), Warfighter's Simulation (WARSIM), Brigade Battle Simulation (BBS), Joint Nonkinetic Effects Model (JNEM), an AAR tool (currently Vision XXI), the Joint Deployment Logistics Model (JDLM) and OneSAF. JLCCTC supports modular force conversion and T2.

**Intelligence Electronic Warfare Tactical Proficiency Trainer (IEWTPT)** is a constructive training simulation being fielded to the Army to support military intelligence (MI) units at corps and below. The IEWTPT enables realistic battle command training through the realistic simulation, stimulation and presentation of joint and Army intelligence capabilities. It is designed to stimulate the MI collection system with scenarios that replicate battlefield situations utilizing the overarching constructive simulation as the driver. This puts the MI Soldier in the training loop using the operational equipment and providing the required reports and data to the combat commander and his staff. IEWTPT supports modular force conversion and T2.

**Common Battle Command Simulation Equipment (CBCSE)** is common off-the-shelf hardware that is used to run the JLCCTC software. It provides a significant improvement for running the simulations over legacy hardware. CBCSE requires replacement every three to five years to maintain relevancy.

**One Semi-Automated Forces (OneSAF)** is a tailorable and composable next generation Computer Generated Force (CGF) that represents a full range of operations, systems and control process (TTP) from entity to brigade level, having variable level of fidelity; and supports all model and simulation domain applications operating in both human-in-the

loop and closed-loop modes. It will represent the physical environment, including urban operations (UO), and its effect on simulated activities and behaviors. OneSAF will be the future entity-level brigade and below constructive simulation, will be a component of the Joint Land Component Constructive Training Capability (JLCCTC), and be used in battle labs and research, development and engineering centers (RDECs).

**Battle Command Training Centers (BCTC)** provides a turnkey digital training capability to conduct individual and collective training throughout the AC and RC, enabling the commanders to train individual operators, leaders and battle staffs across the full spectrum of operations, to include mission rehearsal and reach capabilities using their go-to-war systems. BCTCs directly support the execution of day-to-day operations and exercise support for all leader and battle staff training required by the CATS, Army and MACOM 350-1 training directives, and Army training strategy to achieve combat readiness in Service, joint and/or combined arms training environments.

**Virtual Simulation Training** is also part of Battle Command Training Support and is executed on computer-generated battlefields. It provides crews, leaders and units with realistic, immersive training experiences using an embedded training capability or man-in-the-loop simulators that approximate the physical layout of tactical weapon systems and platforms. In the virtual environment, simulators operating on virtual terrain take the place of weapon systems and can be linked to expand the scope of the training event. Virtual training systems provide commanders with "walk-level" training, sustainment training, gated training events, leader development and mission rehearsal capabilities. Through frequent and repetitive use and an immediate

and total replay AAR capability, virtual training systems assist commanders with building and sustaining of training readiness. Virtual training also has the advantage of allowing Soldiers to perform tasks too dangerous for the live environment (such as calling for artillery fires on or near an occupied friendly position), provides the capability for rapid changes to scenarios, and facilitates retraining specific tasks until training objectives are met. Virtual simulations allow repetitive training under varying conditions to enable the individual or team to conduct live training at a higher state of readiness, potentially reducing OPTEMPO costs. The Combined Arms Tactical Trainers (CATT) represent the family of the virtual simulators discussed below.

**Synthetic Environment Core (SE Core)** is the Army's virtual component of the LVC-IA. It is a program that will integrate the various functions and components of virtual simulations and link the virtual environment to the LVC training environment (TE) to support DOD's training transformation and the Army's training strategy. SE Core will develop new, and integrate existing, software products creating the Army's common virtual environment (CVE), linking system and nonsystem virtual simulations into a fully integrated training capability. The CVE enables the Army to execute combined arms and joint training and mission planning and rehearsals at home station, en route and at deployed locations. SE Core is a key element in the Army's training transformation plan and a complementary training system for the Future Combat Systems.

**Close Combat Tactical Trainer (CCTT)** is the current force's ground maneuver component of CATT, and is a system of computer-driven, combat vehicle simulators such as the M1 Abrams Tank, the M2 Bradley Fighting Vehicle (BFV), the M3 Cavalry Fighting Vehicle, the

Fire Support Team Vehicle, the HMMWV, and emulators that control other vehicle models and that work interactively, similar to the vehicles and functions they simulate. These simulators and emulators are connected via a local area network (LAN). The system's computers create a simulated battlefield that creates the illusion of moving and fighting over actual terrain while operating or riding inside the actual vehicles, and employing the actual weapon systems mounted in or on the vehicles. CCTT is fielded in company/team sets for the AC and mobile platoon sets for the Army National Guard. A Reconfigurable Vehicle Simulator (RVS) and Reconfigurable Vehicle Tactical Trainer (RVTT) have been developed and will be used to support a wider training audience. RVTT's convoy and movement-centric design provides leaders and Soldiers the ability to train highly perishable command and control skills, crew drills and battle drills in a variety of vehicle types in simulated weather, urban operations and complex virtual terrain environments.

**Aviation Combined Arms Tactical Trainer (AVCATT)** is the aviation component of the CATT that provides a system for staff/crew collective and combined arms training, mission rehearsal and joint exercises. AVCATT will be fair-fight interoperable with Close Combat Tactical Trainer (CCTT), is capable of linking with other AVCATT systems via LAN or wide area network (WAN), can be networked to the Army Tactical Command and Control System (ATCCS) workstations and will be interoperable with future CATT systems. It is a multifunctional aviation training system, tailorable to specific unit needs such as mission planning and rehearsal and combined arms collective training through use of Distributed Interactive Simulation (DIS) protocols and Tactical Simulation Interface Units (TSIUs). AVCATT incorporates current and future force aviation aircraft, including attack helicopters

AH-64A Apache and AH-64D Apache Longbow, armed observation helicopters OH-58D Kiowa Warrior, utility helicopters UH-60A/L/M Black Hawk, cargo helicopters CH-47D/F Chinook, and future Armed Reconnaissance Helicopters. The AVCATT is currently fielded to Fort Rucker, Fort Campbell, Army National Guard Region V (Eastover, SC), United States Army Europe (USAREUR), Fort Stewart, Korea, Fort Hood and Army National Guard Region I (Marana, AZ). The AVCATT is a mobile system that can support unit collective training at multiple sites including home station, CTCs and National Guard training sites. This system supports the aviation modular force conversion.

**Soldier Combined Arms Tactical Trainer (S-CATT)** is another member of the CATT family and will be designed to support small-unit leader training on critical combat skills prior to executing them in a live training environment. Soldier CATT will be an immersive individual and collective virtual training simulation supporting light infantry, Ranger, Special Operations Forces, BCT, and Land Warrior equipped units. It is required to enable more frequent, repetitive, standards-based training to build and sustain readiness at home station. Soldier CATT combines immersive Soldier and leader simulators called "Virtual Warrior" with PC-based reconfigurable vehicle simulators and dismounted Soldier workstations to support training of dismounted leaders and Soldiers from squad through company with extensions to individual Soldier, leader and battalion echelons. Soldier CATT will replicate the COE and enable training in the full spectrum of operations on urban and complex terrain, as well as more conventional environments (desert, woodland, home stations), using geo-typical and geo-specific terrain databases. Soldier CATT will (1) train "Soldiers as a System," developing confident and adaptive Soldiers and leaders; and (2)

support multi-echelon, combined-arms, collective unit/leader training, focused at the squad through company levels.

**Virtual Convoy Combat Trainer (VCCT)** provides a critical training capability to support unit deployment training in convoy operations prior to deploying into theater. VCCT provides more frequent, repetitive, standards-based training to build and sustain task proficiency on convoy operation tasks. It is a mobile, immersive virtual simulator allowing Soldiers, as part of a vehicle crew, to participate in a convoy of manned and unmanned computer-generated vehicles. Soldiers come under attack in a virtual training environment and must engage the enemy using realistic weapons and correct weapons engagement techniques. Soldiers encounter shoot/don't shoot scenarios and are trained to develop judgment to know when to make the transition. VCCT will enable training on the full spectrum of operations, in urban and complex terrain environments, as well as more conventional environments (desert, woodland, home stations), using geo-typical and geo-specific terrain databases. VCCT will eventually be replaced by a more capable simulator, RVTT. RVTT will reside within the CCTT program, but provide training capabilities to light, medium and heavy forces for all types of vehicles.

### **Combat Training Centers Modernization Program**

**Digital After Action Review Tool (DAART)** enables the CTC instrumentation system to monitor digitized unit communications and collect digital data to prepare the AAR for digital units. This program is critical in providing a bridge between the current and objective instrumentation systems (OIS). It enables the CTC current instrumentation systems to

collect digital data for the preparation of AARs for ABCS-equipped units.

**CTC Battle Command (BC) Security.** CTCs are required to connect to ABCS for the purpose of (1) playing the higher headquarters (HICON) and adjacent units; (2) extracting critical information from the ABCS for the purpose of AAR and take-home package (THP) development; (3) maintaining safety during the exercise; (4) and controlling the exercise. Instrumentation and AAR product systems (such as DAART) are currently required to operate in Secret System High (SSH). CTC BC security provides a capability allowing CTC instrumentation and support systems (such as DAART, OIS) to be connected to the rotational unit's ABCS. The increasing use of automated systems to support command and control functions and changes in the regulations concerning information assurance have resulted in new requirements for certification and accreditation of CTC instrumentation and supporting systems. The security environment at each CTC must be significantly upgraded to continue to support realistic training by rotation units. CTC BC security supports modular force conversion.

**Objective Instrumentation System (OIS)** is based on and compliant with the CTIA and LT2 concepts. The OIS is an upgrade from the current instrumentation system (IS) and will be developed according to the CTIA. The CTIA serves as the common core architecture for the OIS programs, as well as the instrumentation system programs for home stations and the JRTC MOUT facility. The OIS is an integrated system of computer software and hardware, workstations, databases, voice and video recording, production and presentation equipment, interface devices and communication systems. The system is configured to collect, report, store, manage, process and display event data for 2,000 instrumented

players with the capability to expand to 10,000 instrumented players.

The OIS will accomplish the following functions: exercise planning, system preparation, exercise management, training performance feedback, and system support.

**Deployable IS** is designed to support instrumented AARs for units not physically located at a maneuver CTC site.

**MOUT Instrumentation System (MOUT IS).** Phase 1 of the MOUT-IS provides a basic capability for monitoring and recording audio and video data, within the MOUT complex and in a limited number of buildings, to support AARs for live-fire and force-on-force training exercises. Phase 1 consists of the integration of commercial off-the-shelf (COTS)/nondevelopmental items (NDI) hardware and software components.

**NTC Military Operations in Urban Terrain (MOUT)** site provides an increased capability to conduct full-spectrum operations/training at the National Training Center (NTC). Currently, NTC has developed and continues to build upon 10 towns (additional towns are used for live-fire purposes) and seven subterranean complexes to train units on urban operations. An additional NTC site, Pioneer Site complex, has been used for Special Operation Forces training. Towns at the NTC are of varying sizes constructed using fabricated "buildings" (mobile MOUT), sheds, rail cars, permanent structures and tents. Currently, the largest town is Tiefort City, which consists of approximately 50 buildings. This capability will continue to expand to address the COE and support commander's training objectives.

**Deployable MOUT/Modular Armored Tactical Combat House (MATCH)** is a deployable, instrumented urban operations training

system. The system utilizes audio and video recording to capture Soldier actions for AAR input. Instrumentation includes internal and external cameras and controlled targetry and battlefield effects. Facility also includes external lighting, internal and external stairwells, breach points and moveable wall panels to enhance training. MATCH is designed to be used with ball ammunition and will support up to and including 7.62 mm.

**NTC Live-Fire Targets** provide for the development and acquisition of replacement target systems on the live-fire ranges. The program will replace existing target systems with state-of-the-art capabilities, integrate and be compliant with NTC OIS live-fire command and control (C2), and improve the C2 target array. This program supports modular force conversion and the global war on terrorism.

**NTC Rail Spur.** Based upon the force structure of the modular BCTs and supporting brigades, there is an increase in the required railcars from 200 to 500. Yermo (USMC Logistics Base) is not capable of handling the throughput. To meet future Army throughput requirements to the NTC, a rail spur is needed.

**Opposing Forces Surrogate Training Systems (OSTS)** consists of the OPFOR Surrogate Vehicle (OSV), OPFOR Surrogate Tank Vehicle (OSTV) and OPFOR Surrogate Combat Wheeled Vehicle (OSWV). These are based on the M113A3 chassis with visual modifications to include an OSV turret that is driven by BFV components. Excess M60 thermal sights are utilized. The OSTV replaces the M551 Sheridan and M60 tanks used as surrogate tanks, and the OSV replaces M551s and M113s used as surrogate BMP fighting vehicles. These systems will be fielded to NTC, JRTC and CMTC.

**OPFOR Combat Wheeled Vehicle.** A change in the operational environment reduces the number of combat tracked vehicles but increases wheeled systems. It provides an array of CS/CSS civilian wheeled vehicles encountered on the modern battlefield using a common M1113 HMMWV chassis. These systems reflect changing real-world conditions and provide full-spectrum capability to the maneuver CTC OPFORs. This includes both tactical and technical vehicles. OSTV/OSV support modular force conversion and the global war on terrorism.

**CTC Aviation** consists of the OPFOR aviation and observer-controller/trainer (OC/T) aviation. OPFOR aviation provides OPFOR rotary-wing aviation and unmanned aerial vehicles (UAVs) that replicate emerging threats. UH-1s are aging, near wear-out, and scheduled to leave the inventory in FY08. OC/T aviation provides the OC/Ts the capability to control the event/exercise and provides an AAR for aviation assets at a maneuver CTC or Joint Air-Ground Center of Excellence (JAGCE) rotation. Both the OPFOR and OC/T aircraft will be fielded as part of the Light Utility Helicopter (LUH) plan and is scheduled for FY08 time frame. There is no UAV program for OPFOR. These systems will replicate real-world conditions and provide full-spectrum capability to the maneuver CTC OPFORs.

**OH-58D TESS** is needed to support aviation systems during normal rotations (NTC, JRTC and CMTC) as well as at the JAGCE. OH-58D TESS would allow realistic play and provide valuable AAR feedback. TESS allows OH-58Ds to be instrumented for AAR purposes and safety during CTC and JNTC rotations. TESS will interface with current instrumentation systems (IS) at the CTCs and the replacement for IS which will be the Objective Instrumentation System. OH-58D will be in

the Army inventory until FY12. Additionally, TESS may be modified to instrument LUH/ Armed Reconnaissance Helicopter (ARH), which will be fielded to replace OH-58D and UH-1.

### **Training Support for the Future Combat Systems (FCS) Program**

To fulfill the Army's concepts, the FCS system of systems must be capable of supporting operations, mission rehearsals, and training of separate audiences (Soldiers, units, leaders and battle staffs) simultaneously.

The FCS program provides the opportunity to fundamentally change training in the Army. The Army's goal—to train anywhere, anytime—is best achieved by providing an embedded training (ET) capability in all Future Combat Systems. To that end, embedded training is the primary option for FCS-equipped BCT training in all training domains—institutional, operational and self-development—including the Army Combat Training Centers and the Joint National Training Center. ET is being developed as an integral part of the FCS manned platform and command, control, communications, computers, intelligence, surveillance and reconnaissance (C4ISR) architectures, not as a set of add-on boxes and software applications. Embedded LVC training is an increment 1 capability and a Key Performance Parameter (KPP). KPP#6 requires “the FCS Family of Systems must have embedded individual and collective training capability that supports live, virtual, and constructive training environments.” ET will be designed-in at the start of the program to ensure it is developed in conjunction with the other FCS systems of systems components.

### **Conclusion**

People are central to the Army—they are the keys to achieving ready forces today and a transformed Army tomorrow. Effective Soldiers and leaders—those who are self-aware, adaptive and innovative—will solve unforeseen operational problems. Developing and maintaining this edge in the human dimension is critical to the success of Army transformation and sustaining day-to-day operational readiness. The Army is committed to the development of its leaders at all levels. This commitment extends equally to all officers, warrant officers, NCOs and DA civilians of the Active Army, Army National Guard and Army Reserves. Leaders must be appropriately developed before assuming and while occupying leadership positions to ensure they are competent in, and confident of, their ability to lead at the level assigned. In short, the goal is to develop competent, confident leaders who can exploit the full potential of present and future doctrine.

Army training must change to remain relevant as changes occur in the operational environment. The Army must train Soldiers and units for situations and missions they will face today and in the future. The Army must provide leaders, Soldiers, and units tough, realistic, multi-echeloned and fully integrated training that will produce bold and innovative leaders to deal with complex situations, flexible Soldiers with the Warrior Ethos, and well-trained units. Soldiers of the 21st century will be expected to achieve these results across the full spectrum of operations. The nature of future threats demands that the Army place its highest priority on training the nation's Soldiers.

